

Customer No.: 31561  
Application No.: 10/063,737  
Docket No.: 8727-US-PA

### REMARKS

#### Present Status of the Application

The Office Action rejected all presently-pending claims 16-22. Specifically, the Office Action rejected claims 16-22 under 35 U.S.C. 102(b), as being anticipated by Sharma et al. (US 5,990,547 and Honsinger et al. (US 5,500,804), respectively. Applicant respectfully requests reconsideration of those claims.

#### Discussion of Office Action Rejections

The Office Action rejected claims 16-22 under 35 U.S.C. 102(b) as being anticipated by Sharma. Applicants respectfully traverse the rejections for at least the reasons set forth below.

To anticipate a claim, the reference must teach each and every element of the claim. M.P.E.P. § 2131. However, Sharma did not disclose the feature of “a non-signaling layer having a voltage reference signal trace, wherein the voltage reference signal trace is wider than the other signal traces” as claimed in claim 16. The emphasized feature can be found in paragraph 0034 in the specification of the present application. According to column 3 line 53 – column 4 line 19, on which the Office Action relied to reject the present application, some traces are moved to the voltage reference layer. However, Sharma focused on increasing I/O by moving traces into voltage reference layers only, and did not

Customer No.: 31561  
Application No.: 10/063,737  
Docket No.: 8727-US-PA

notice anything about the size of the traces. Therefore, those skilled in the art are not taught to enlarge the size of the voltage reference signal trace according to Sharma.

For at least the reasons stated above, it is obvious that Sharma did not teach each and every element of claim 16. Therefore, claim 16 is patentable over Sharma.

Claims 17-22 are therefore patentable over Sharma as a matter of law since their depending claim 16 is patentable over Sharma.

The Office Action further rejected claims 16-22 under 35 U.S.C. 102(b) as being anticipated by Honsinger. Applicants respectfully traverse the rejections for at least the reasons set forth below.

To anticipate a claim, the reference must teach each and every element of the claim. M.P.E.P. § 2131. However, Honsinger did not disclose the feature of “a non-signaling layer having a voltage reference signal trace, wherein the voltage reference signal trace is wider than the other signal traces” as claimed in claim 16. According to column 4, lines 12-15, on which the Office Action relied to reject the present application, wiring media layers are typically arranged as wiring layer pairs with a voltage reference layer. However, the voltage reference layer “provides power and serves to shield signals in one plane pair from interference from signals in another plane pair” (column 4, lines 20-23). It is obvious that, Honsinger taught to *prevent interference between two plane pairs* but did nothing about the size between the voltage reference signal trace and other signal traces. Therefore, those

Customer No.: 31561  
Application No.: 10/063,737  
Docket No.: 8727-US-PA

skilled in the art are not taught to design voltage reference signal trace into the voltage reference layer according to Honsinger.

For at least the reasons stated above, it is obvious that Honsinger did not teach each and every element of claim 16. Therefore, claim 16 is patentable over Honsinger.

Claims 17-22 are therefore patentable over Honsinger as a matter of law since their depending claim 16 is patentable over Honsinger.

Further, Sharma and Honsinger did not teach to enlarge the size of the voltage reference signal trace. However, the present invention gains the benefit that reduces power loss and reduces parasitic resistance by employ a wider conductive line as a voltage reference signal trace as claimed in the amended claim 16. Therefore, claims 16-22 are not anticipated by the citations.

For at least the foregoing reasons, Applicant respectfully submits that independent claim 16 patently defines over the prior art references, and should be allowed. For at least the same reasons, dependent claims 17-22 patently define over the prior art as well.

Customer No.: 31561  
Application No.: 10/063,737  
Docket No.: 8727-US-PA

### CONCLUSION

For at least the foregoing reasons, it is believed that the pending claims 16-22 are in proper condition for allowance. If the Examiner believes that a telephone conference would expedite the examination of the above-identified patent application, the Examiner is invited to call the undersigned.

Date :

*Sept. 8, 2004*

Respectfully submitted,

*Belinda Lee*  
Belinda Lee

Registration No.: 46,863

Jianq Chyun Intellectual Property Office  
7<sup>th</sup> Floor-1, No. 100  
Roosevelt Road, Section 2  
Taipei, 100  
Taiwan  
Tel: 011-886-2-2369-2800  
Fax: 011-886-2-2369-7233  
Email: [belinda@jcipgroup.com.tw](mailto:belinda@jcipgroup.com.tw)  
[Usa@jcipgroup.com.tw](mailto:Usa@jcipgroup.com.tw)

**This Page is Inserted by IFW Indexing and Scanning  
Operations and is not part of the Official Record**

**BEST AVAILABLE IMAGES**

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images include but are not limited to the items checked:

- ☐ **BLACK BORDERS**
- ☐ **IMAGE CUT OFF AT TOP, BOTTOM OR SIDES**
- ☐ **FADED TEXT OR DRAWING**
- ☐ **BLURRED OR ILLEGIBLE TEXT OR DRAWING**
- ☐ **SKEWED/SLANTED IMAGES**
- ☐ **COLOR OR BLACK AND WHITE PHOTOGRAPHS**
- ☐ **GRAY SCALE DOCUMENTS**
- ☐ **LINES OR MARKS ON ORIGINAL DOCUMENT**
- ☐ **REFERENCE(S) OR EXHIBIT(S) SUBMITTED ARE POOR QUALITY**
- ☐ **OTHER: \_\_\_\_\_**

**IMAGES ARE BEST AVAILABLE COPY.**

**As rescanning these documents will not correct the image problems checked, please do not report these problems to the IFW Image Problem Mailbox.**